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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/601,676

06/24/2003

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04/19/2006

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EXAMINER

DICUS, TAMRA

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/601,676

Applicant(s)

KAMOSHIDA ET AL.

Examiner

Tamra L. Dicus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 28-38 is/are pending in the application.
- 4a) Of the above claim(s) 6,7 and 31-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 28-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No: _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The 103 to Yamaguchi is withdrawn due to Applicant's arguments.

Election/Restrictions

Newly submitted claims 31-38 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: coating conductive material on a dielectric surface and grinding thereof are not present in the article claims to the image carrier.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 31-38 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 is not clear because the conductive dots that make up the low-resistance layer in claim 1 are positioned on top of the low-resistance layer in claim 3. It is not clear if there are additional conductive portions/dots as in a separate layer on top of the surface of the low-resistance layer or in a single low-resistance layer as in claim 1, as Applicant refers to the conductive portions are dots in claim 3 (e.g. said large number of conductive portions). If

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additional elements are required, the claims should state language like "further comprising" to make it clear.

Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "substantially the same" is indefinite as the specification does not provide a definition to the metes and bounds of the phrase. In order to determine infringement of the present claims, one necessarily would need to determine with a reasonable degree of certainty the scope of the phrase "substantially different." Applicant has failed to provide any such guidance and, accordingly, this phrase renders the scope of the claims unclear.

When a term of degree is presented in a claim, first a determination is to be made as to whether the specification provides some standard for measuring that degree. If it does not, a determination is made as to whether one of ordinary skill in the art, in view of the prior art and the status of the art, would be nevertheless reasonably apprised of the scope of the invention. Even if the specification uses the same term of degree as in the claim, a rejection may be proper if the scope of the term is not understood when read in light of the specification. While, as a general proposition, broadening modifiers are standard tools in claim drafting in order to avoid reliance on the doctrine of equivalents in infringement actions, when the scope of the claim is unclear a rejection under 35 U.S.C. 112, second paragraph is proper. See *In re Wiggins*, 488 F. 2d 538, 541, 179 USPQ 421, 423 (CCPA 1973). Additionally, a substantial portion was held to be indefinite because the specification lacked some standard for measuring the degree intended

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and, therefore, properly rejected as indefinite under 35 U.S.C. 112, second paragraph. Ex parte Oetiker, 23 USPQ2d 1641 (Bd. Pat. App. & Inter. 1992).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5 and 28 (new) are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,315,061 to Suzuki et al.

Suzuki teaches an image carrier (Suzuki, 30, Fig. 3 and associated text) used in an image forming apparatus comprising a dielectric layer (32, Fig. 3 and associated text), wherein charge is transferred between said dielectric layer and a charge-transfer controlling means so as to apply charge to said dielectric layer (via a roller, 22, Fig. 3 and associated text), wherein said dielectric layer has a low-resistance layer formed on the outer surface thereof, said low-resistance layer comprises a large number of conductive portions (dots 34, Fig. 3 and associated text consist of a layer of dots), charge is transferred between said conductive portions and said charge-transfer controlling means so as to apply charge to or remove charge from said conductive portions, and said conductive

portions are arranged to be dispersed separately from each other and fixedly disposed (see 34 and 16 spacing in Fig. 3 and associated text, fixedly disposed by the inherent attraction of the charged portions/dots and by the roller (instant claim 28, FIGS. 3, 7, 29 and 30 and associated text, col. 6, line 50-col. 7, line 6).

Regarding instant claim 2, Suzuki teaches an image carrier used in an image forming apparatus as claimed in instant claim 1, wherein said conductive portions are a large number of dots which are dispersedly arranged (there are more than one or two number of dots dispersedly arranged, meeting "a large number", seen in Fig. 3).

Regarding instant claim 3, (interpreted as dots having conductive portions making up a single layer) Suzuki teaches an image carrier used in an image forming apparatus as claimed in claim 1 or 2, wherein said large number of conductive portions are at least partially exposed on the surface of said low-resistance layer (see 34 and 16 spacing in Fig. 3 and associated text).

Further regarding claim 3, (interpreted as a separate layer on top of the low-resistance layer), Suzuki teaches additional conductive dots 16 on top of dots 34 seen in Fig. 3, thereby forming an additional conductive layer.

Regarding instant claims 4 and 5, Suzuki teaches the same materials are provided in the same layers. Suzuki does not explicitly state the electric resistance relationship and what the thickness range is to be set. However, how one chooses to measure the same material whether in planes or thickness is intended use and is given little patentable weight as it does not differentiate the claimed structure from a prior art structure satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). See further Fig. 7-9, col. 4, lines 5-60, and col. 6, lines 25-35.

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5. Claims 29-30 (new) are rejected under 35 U.S.C. 102(b) as being anticipated by 6,031,552 to Statz et al.

6. Statz teaches an image carrier per instant claim 29, comprising: a first layer having a first resistivity (grounded conductive layer or conductive spots layer, e.g. low resistance layer), a second layer having a second resistivity (dielectric layer) formed on the outer surface of the first layer, wherein the second resistivity is substantially different (dielectric has high resistivity about 10^{15} Ohm/cm) than the first resistivity (col. 4, lines 63-65, e.g. conductive spots made of a material with a lower resistivity than dielectric and col. 9, lines 5-9, e.g. ground plane lower resistance than dielectric); wherein the second layer comprises a large number of conductive portions that are arranged to be disposed separately from each other (tiny conductive spots at the working surface of or within the dielectric layer); wherein charge is transferred between the conductive portions and a charge-transfer controller (controller 24, including cylinder 12, print head 14 and transfer station 18, FIG. 1 and associated text) so as to apply charge to or remove charge from the conductive portions; (see Abstract, col. 4, lines 50-65, col. 11, lines 5-20), and wherein an electric resistance of the second layer has anisotropic properties (anisotropic dielectric layer 83, FIGS. 1 and 2 and associated text, col. 8, line 1) so that the resistance in a direction perpendicularly crossing a plane direction in a longitudinal direction of the second layer is lower than the resistance of a plane direction in a transverse direction of the second layer (anisotropic definition). Claims 29-30 are met.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,315,061 to Suzuki et al.

9. Suzuki essentially teaches the claimed invention above.

10. Suzuki does not explicitly teach the electric resistance relationship as recited in claim 4 or teach the thickness of the low-resistance layer is to be 1 microns or less as recited in claim 5.

However, because the same materials are employed, one having ordinary skill in the art would expect the same relationship to occur. Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. See MPEP 2106. Further regarding what the thickness is to be set at 1 microns or less, if the thickness is 1 micron or less, it would have been obvious to one having ordinary skill in the art to adjust the thickness of the low-resistance layer since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. Thickness effects the conductivity within the layer.

Response to Arguments

11. Applicant's arguments filed 02-03-06 have been fully considered but they are not persuasive.

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12. Applicant argues Suzuki does not teach a low-resistance layer as claimed. Applicant argues Suzuki shows dielectric bodies 32 are between conductive portions 34 and not on the outer layer of a dielectric. However, this is not a persuasive argument because Suzuki explicitly shows the low-resistance layer comprising the large number of conductive portions and on the outer surface of the dielectric as recited (see FIGS. 3 and 7 where the charged dots 16 are stacked and layered in at least 3 layers on the outer surface of dielectric bodies 32). Because the same conductive portions are in layers, that is equivalent to the low-resistance layer as recited.

Applicant's specification states the low-resistance layer is comprised of the conductive portions (page 3 second complete paragraph under Summary of Invention bridging page 4 and page 11 describing FIG. 2(b) shows the conductive portions make up the low-resistance layer).

Applicant further points to FIG. 2(b) to overcome the 112 2nd paragraph indefiniteness rejection, however, In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., FIG. 2) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). If Applicant intends for the layers to be separate, Applicant is free to amend the claims.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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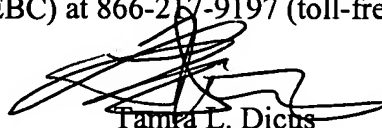
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 12, 2006


Tamra L. Dicus
Examiner
Art Unit 1774


RENA DYE
SUPERVISORY PATENT EXAMINER
A.U. 1774 4/17/06